

BORIN, A.V.; MOSHKINA, T.M.; MISHAKOVA, M.V.; SHAYMARDANOVA, L.R.

Sensitizing effect of some polyethylene glycols. Zhur. nauch.  
i prikl. fot. i kin. 8 no.3:211-212 My-Je '63. (MIRA 16:6)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofoto-  
instituta, Kazan'.  
(Glycols) (Photographic emulsions)

ALESHIN, S.N., doktor sel'skokhoz. nauk, prof.; SHAYMUKHAMETOV, M.Sh.,  
aspirant

Change of the mineralogical composition of Podzolic soils as  
a result of the use of fertilizers over a period of many years.  
Izv. TSKHA no.6:64-73 '63, (MIRA 17:8)

ALESHIN, S.N., doktor sel'skokhozyaystvennykh nauk, prof.;  
SHAYMUKHAMEDOV, M.Sh., aspirant

Nature of the absorption of organic substances by the  
soil. Izv. TSKHA no.2:37-46 '62. (MIRA 15:9)  
(Soil absorption)

CONFIDENTIAL  
The following information is classified as SECRET, and is to be controlled  
in accordance with the provisions of the Regulations on the Control of  
Secret Information.

The following information is classified as SECRET by the methods of  
cryptanalysis and integral cryptography. (Rev. TSEHA no.2.  
(MTPA 1979)

The following information is classified as SECRET by the methods of  
cryptanalysis and integral cryptography. (Rev. TSEHA no.2.  
(MTPA 1979)

SHAYN, A.A.

Method of intubation in inoperable cancer of the lower one-third  
of the esophagus and the distal section of the stomach. Vop. onk.  
11 no.5:15-19 '65. (MIRA 18:8)

1. Iz Kiyevskogo oblastnogo onkologicheskogo dispensera (glavnyy  
vrach - N.N.Rodionova), nauchnyy rukovoditel' - prof. G.L.Ratner.

DOSPЕKHОВ, B.A.. kand. sel'skokhoz. nauk, dotsent; SHAYMUKHAMEDOVA,  
A.A., aspirantka

Group and chemical composition of soil particles smaller than  
0.01 mm of size in a continuous field experiment. Izv. TSKHA  
no.6:74-84 '63. (MIRA 17:8)

SHANNAN, HONG KONG AUTOMATICITY

1-1  
1-1  
.8-1

Aviometry (Automatic Machines) Machine, Machine, 1-2.

013 p. Diagrams, Tables.  
"Literature": p. 644-645.

002 N/5  
7/1 N/5  
1-12 '71 N/5  
642,2 N/5

1948, A. I.

Reconstruction with a poly-ethylene tube of the pyloric section  
of the stomach in cancer. Vop.onk. 11 no.11.91-92 '65.

(MIRA 19:1)

I. B. Khiruzhetskogo obshchestvo (sav. - L. B. Kozhanchikov)  
Kopetshevskogo obshchestvo onkolozheskogo dispensari (Glavnyy  
vrach - A. I. Smagin, nauchnyy rukovoditel' - prof. G. I. Kainst).



SHAW, J. . . .

File of interest regarding the conduct of the investigation.  
 Annotated List of References. 1961.

...and the ...

1. *Journal of the American Medical Association*, 1997; 277: 1001-1005.

[illegible]

ACC NR: A-7009501

SOURCE CODE: UR/0114/66/000/011/0028/0031

AUTHOR: Tokar', I. Ya. (Candidate of Technical Sciences); Byalyy, B. I. (Engineer); Shayn, A. S. (Engineer)

ORG: none

TITLE: Design of thrust bearings

SOURCE: Energomashinostroyeniye, no. 11, 1966, 28-31

TOPIC TAGS: viscous flow, friction

SUB CODE: 20

ABSTRACT: An analysis of an analytic solution for the three-dimensional hydrodynamic problem of the flow of a viscous liquid between surfaces of complex form with a fixed law of distribution of oil pressure on the boundaries of the area. Formulas are produced for the distribution of pressure, carrying capacity, friction and oil expenditure, calculation with which gives completely satisfactory correspondence with the results of calculation using the finite differences method on the "Ural" computer and with experimental data. Orig. art. has: 2 figures, 24 formulas and 3 tables. [JPRS: 40,102]

Card 1/1

UDC: (62-233.23+63-762)62-135.001.24

0930 11:13

SHAYN, B.M.

Symmetrical generalized heaps. Nauch.dokl.vys.shkoly; fiz.-  
mat.nauki no.1:88-93 '59. (MIRA 13:1)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshev-  
skogo.

(Groups, Theory of)

W. T. W. (Car tow)

Problem in elementary math. No. 1: 243-252 '63.  
(NIA 10:11)

(Mathematics--Problems, exercises, etc.)

85953

S/020/60/134/005/C29/C35XX  
C111/C222

16,2000

AUTHOR: Shayn, B.M.

TITLE: A System of Axioms for Semigroups Comprisable Within Generalized Groups

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.134, No.5, pp.1030-1033

TEXT: A conjunction of a finite set of assertions  $B_k \wedge B_{k+1} \wedge \dots \wedge B_{k+m}$  is denoted by  $\bigwedge_{i=k}^{k+m} B_i$ .

A subgroup is called a generalized group if for every element  $g$  of this subgroup there exists an element  $g^{-1}$  so that  $gg^{-1}g = g \wedge g^{-1}gg^{-1} = g^{-1}$  and the idempotents of the subgroup can pairwise be changed. A semigroup is called comprisable within a generalized group if the semigroup can be mapped isomorphically into a generalized group. The investigation of the comprisability can be restricted to semigroups with a unity. The letters  $u, v, x, y, z$  denote individual variables for the set  $D$  of the elements of the considered subgroup. The quasiorder (cf.(Ref.4))  $\zeta$  between the elements of the semigroup  $D$  is called stable if

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C111/C222

A System of Axioms for Semigroups Comprisable Within Generalized Groups

$$\begin{aligned} xv &\in \xi < z > \wedge \\ uv &\in \xi < z > \wedge \\ uy &\in \xi < z > \rightarrow xy \in \xi < z > \end{aligned}$$

is satisfied. The intersection  $\hat{\xi}$  of all quasiorders  $\xi$  of D is denoted as a strong quasiordering relation.

Theorem 1: In order that a semigroup is comprisable within a generalized group it is necessary and sufficient that the strong quasiordering relation of this semigroup is an ordering relation.

The condition of theorem 1 can be written in the form

$$(1) \quad \hat{\xi} \cap \hat{\xi}^{-1} \subset \Delta_D,$$

where  $\Delta_D$  denotes the identical binary relation between the elements of the semigroup D.

Let the binary relations  $\xi_0, \xi_1, \dots$  between the elements of D be defined by

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C111/C222

A System of Axioms for Semigroups Comprisable Within Generalized Groups

$$(2) \quad \zeta_0 = \Delta_D,$$

$$\zeta_m = \bigcup_{(z_1, z_2) \in \zeta_{m-1}} \{ (x, y) \mid \begin{aligned} &xy \in \zeta_{m-1} \langle z_1 \rangle \wedge \\ &uv \in \zeta_{m-1} \langle z_1 \rangle \wedge \\ &uy \in \zeta_{m-1} \langle z_1 \rangle \end{aligned} \}.$$

Then it holds

$$(3) \quad \zeta_{n_2} \circ \zeta_{n_1} \subset \zeta_{n_1+n_2}, \quad \zeta_m \subset \zeta_{m+1}$$

and

$$(4) \quad \hat{\zeta} = \bigcup_{m=1}^{\infty} \zeta_m.$$

With the aid of (4) it is proved that the strong quasiordering relation of the semigroup is stable. The condition (1) is equivalent to

$$(5) \quad \zeta_n \cap \zeta_n^{-1} \subset \Delta_D \text{ for all } n.$$

The relation (5) can elementarily be written:

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C111/C222

A System of Axioms for Semigroups Comprisable Within Generalized Groups

$$(6) \bigwedge_{i=1}^n \bigwedge_{k=1}^{i-1} \left( \begin{array}{l} x_k^i v_k^i = x_{3k-2}^{i+1} y_{3k-2}^{i+1} \wedge x_{-k}^i v_{-k}^i = x_{2-3k}^{i+1} y_{2-3k}^{i+1} \wedge \\ u_k^i v_k^i = x_{3k-1}^{i+1} y_{3k-1}^{i+1} \wedge u_{-k}^i v_{-k}^i = x_{1-3k}^{i+1} y_{1-3k}^{i+1} \wedge \\ u_k^i y_k^i = x_{3k}^{i+1} y_{3k}^{i+1} \wedge u_{-k}^i y_{-k}^i = x_{-3k}^{i+1} y_{-3k}^{i+1} \end{array} \right) \rightarrow x_{-1}^1 y_{-1}^1 = x_1^1 y_1^1.$$

For a fixed  $n$  the formula (6) is denoted by  $A_n$ .

Theorem 2: The sequence of axioms  $A_1, A_2, \dots$  characterizes the class of semigroups which are comprisable within generalized groups. (6) is a scheme of axioms

Theorem 3: Let  $A_m$  and  $A_n$  be two axioms,  $m < n$ . Then  $A_m$  follows from  $A_n$ ; but  $A_n$  does not follow from  $A_m$ .

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S/020/60/134/005/029/035XX  
C111/C222

A System of Axioms for Semigroups Comprisable Within Generalized Groups

Theorem 4: No finite system of elementary axioms can characterize the class of semigroups which are comprisable within generalized groups. ✓

The author mentions A.I.Mal'tsev and thanks V.V.Vagner for the theme.

There are 6 references: 4 Soviet, 1 English and 1 American.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo (Saratov State University imeni N.G.Chernyshevskiy)

PRESENTED: May 30, 1960, by A.I.Mal'tsev, Academician

SUBMITTED: May 26, 1960

Card 5/5

SHAYN, B.M.

System of axioms for semigroups inbeddable in generalized groups.  
Dokl. AN SSSR 134 no.5:1030-1033 O '60. (MIRA 13:10)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo.  
Predstavleno akademikom A.I.Mal'tsevim.  
(Groups, Theory of)

SHAYN, F.M. (Saratov)

Imbedding of semigroups into generalized groups. Mat. sbor. 55  
no.4:379-400 D '61. (MIRA 15:3)  
(Groups, Theory of)

SHAYN, B.M.

Representation of semigroups by means of binary relations.  
Dokl. AN SSSR 142 no.4:808-811 F '62. (MIRA 15:2)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo.  
Predstavleno akademikom A.I.Mal'tsevim.  
(Groups, Theory of)

SHAYN, B.M.

Representation of generalized heaps. Izv. vys. ucheb. zav.; mat.  
no.6:142-154 '61. (MIRA 15:3)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.  
(Groups, Theory of)

SHAYN, B. M.

"On some applications of semi-group representation theory to theory of automata"  
report submitted for the Intl. Symposium on Relay Systems and Finite Automata Theory  
(IFAC), Moscow, 24 Sep-2 Oct 1962.

SHAYN, B.M.

Representations of generalized groups. Izv. vys.ucheb. zav.;  
mat. no.3:164-176 '62. (MIRA 15:9)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.  
Chernyshevskogo.

(Groups, Theory of)

SHAYN, B.M.

Subdirectly nonexpandable semigroups. Dokl. AN SSSR 144 no.5:  
999-1002 Je '62. (MIRA 15:6)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.  
Predstavleno akademikom A.I.Mal'tsevym.  
(Groups, Theory of)



SHAYN, B.M. (Saratov)

Representation of semigroups by means of binary relations. Mat.  
sbor. 60 no.3:293-303 Mr '63. (MIRA 16:3)  
(Groups, Theory of) (Transformations (Mathematics))

SHAYN, B.G. (Saratov)

Theory of restrictive semigroups. Izv. vys. ucheb. zav. mat. ser. 2:  
152-154 '63. (MIA 1015)

(Groups, Theory of)

SHAYN, B.M.

Transitive representations of semigroups. Usp. mat. nauk 18  
no.3:215-222 My-Je '63. (MIRA 16:10)

SHAYN, B.M.

Theory of generalized groups. Dokl. AN SSSR 153 no.2:296-299 N  
'63. (MIRA 16:12)

1. Saratovskiy gosudarstvennyy universitet im. N.G.Chernyshevskogo.  
Predstavleno akademikom A.I.Mal'tsevym.

SHAIN, B.M.

One-sided nilpotent semigroups. Rep. Mat. Inst. Ser. 1:147  
199 Ja-F '64. (MIRA 1750)

SHAYN, B.M.

Involutory semigroups of complete binary relations. Dokl. AN  
SSSR 156 no.6:1300-1303 Je '64. (MIRA 17:8)

1. Saratovskiy gosudarstvennyy universitet imeni N.G. Cherny-  
shevskogo. Predstavleno akademikom A.I. Mal'tsevim.

SHAYN, B.M. (Saratov)

Representation of ordered semigroups. Mat. sbor. 65 no.2:188-197  
O '64. (MIRA 17:11)

SHAYN, B.M. (Saratov)

Restrictive binary semigroups. Izv. vys. ucheb. zav.; mat. no. 1:168-  
179 '65. (MIRA 18:3)



L 60285-65 EWT(d) IJP(c)

ACCESSION NR: AP5021196

CZ/0045/64/000/004/0259/0262

AUTHOR: Schein, Boris M. (Shayn, Boris M.) (Saratov)

TITLE: Generalized groups with the well-ordered set of idempotents

SOURCE: Matematicheskoye fizicheskoye obozreniye, no. 4, 1964, 259-262

TOPIC TAGS: group theory

Abstract (English article, Author's Russian summary, modified):  
The following theorem is proved: If the set of all idempotents  
of a generalized group is well-ordered (in the canonical order  
relation of that generalized group), the given generalized group  
is Cliffordian (that is, it satisfied the condition  $gg^{-1} = e^{-1}g$   
for any element  $g$ ). Orig. art. has 3 formulas.

ASSOCIATION: Kafedra geometrii mekhaniko-maticheskogo fakul'teta Saratovskogo  
gosudarstvennogo universiteta, Saratov SSSR (Department of Geometry of the Mechanics  
and Mathematics Faculty, Saratov State University)

SUBMITTED: 19May64

ENCL: 00

SUB CODE: MA

NO REF SOV: 005

OTHER: 002

JPRS

Card 1/1 *h/p*

MAIN, 701.

Copy of letter of 10 groups of binary ratios. Sit. nat. zhur. o  
no. 20 (1983) 15.

(MIRA 18:8)

PLATE 18-7

1. All samples and data by water test, etc. (TARA 18-7)  
2. 18-7

SHAYN, B.M.

The Birkhoff - Kogalevskii theorem. Usp. mat. nau. 29 no.6:  
173-174 N-D '65. (MIRA 18:12)

1. Submitted March 11, 1965.

Smith, P.H.

Statement of research for binary relations. Doc. AN SSSR  
Doc no.: 111-11. B 195. (MIA 19:1)

1. Soviet very considerably universalized in. H.G.  
Chernyshevskoye. Submitted April 1, 1955.

SHAYN, D.A.

Industrial utilization of meat-hydrolysate culture media in  
the production of biopreparations. Trudy Gos.nauch.-kont.inst.  
vet.prep. 4:409-415 '53. (MLRA 7:10)

1. Omskiy biokombinat.  
(Bacteriology--Cultures and culture media)

USSR/Virology - Human and Animal Viruses.

E-3

Abs Jour : Ref Zhur - Biol., No 12, 1958, 52658

Author : Likhachev, N.V., Shayn, D.A., Fed'yushina, T.M.

Inst : -

Title : Experimental Preparation of a Tissue Vaccine Against  
Sheep Smallpox.

Orig Pub : Inform. byul. biol., prom-sti, 1957, No 2, 8-12

Abstract : In order to avoid loss of virus in tissues, the preparation is recommended of a vaccine from a virus suspension in the proportion of 1:20 (without quinosol) containing 20% glycerine. A tissue aluminum hydroxide vaccine, introduced in 2 ml doses, creates a stable immunity in sheep, serviceable for a period of no less than 8 months; the output of material from infected sheep is increased considerably in preparing a tissue vaccine. Since the dose in this method is smaller 2½ times as many animals can be vaccinated with the same amount of vaccine.

Card 1/1

Orig Pub : Tr. Gos. nauchno-control'n. in-ta vet. pre-  
paratov, 1957, 7, 255-257

APPROVED FOR RELEASE: 08/09/2001

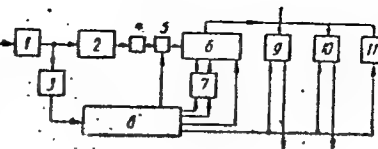
CIA-RDP86-00513R001548730003-0"

Abstract : No abstract

Card 1/1

ACC NR: AP6015634

Fig. 1. 1 - alternating voltage amplifier; 2 - frequency modulator; 3 - clipper; 4 - counter pulse shaper; 5 - counter pulse rectifier; 6 - reversible counter; 7 - trigger of the reverser; 8 - command device; 9-11 - output units



To determine the sign of the increment of the average input signal value, the output of the reversible counter is connected by parallel tie lines to the potential coincidence circuit. The output of the potential coincidence circuit is connected through a differentiating circuit to the output controlled rectifier. To measure the increment of the average value of the input signal, the output of the reversible counter is connected by parallel tie lines to the discriminator. The output of the discriminator is connected to the digital indicator with a memory. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 15Apr65

Card 2/2



1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order. The names are: [illegible]

L 26675-66 EWT(1)/EWA(h)

ACC NR: AP6017128

SOURCE CODE: UR/0410/65/000/002/0069/0076

AUTHOR: Kantorovich, V. B. (Baku); Melik-Shakhnazarov, A. M. (Baku); Shayn, I. L. (Baku)

ORG: none

TITLE: Investigation of the process of equilibration in digital automatic AC compensators [This paper was presented at the 6th All-Union Conference on Automatic Control and Methods of Electrical Measurement held at Novosibirsk in Sept., 1964]

SOURCE: Avtometriya, no. 2, 1965, 69-76

TOPIC TAGS: hodograph, digital system

ABSTRACT: The article presents a graphoanalytic method for investigation of the process of equilibration in digital automatic rectangular-coordinate ac compensators which consists of construction of a hodograph of the difference voltage  $\Delta V$  on the plane of compensating voltages and analysis of the nature of its displacement. A dependence is produced for the allowable degree of interdependence of the equilibration circuits and the compensator parameters. Orig. art. has: 4 figures and 12 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 15Sep64 / ORIG REF: 005

Card 1/1 BLG

UDC: 621.317.7.083.5

L 25565-66

ACC NR: AM6004738

Monograph

UR/

37

B+1

Aliyev, T. M.; Melik-Shakhnazarov, A. M.; Shayn, I. L.

Automatic alternating current compensating devices (Avtomaticheskiye kompensatsionniye ustroystva peremennogo toka) Baku, Azgiz, 1965. 359 p. illus., biblio. 1,360 copies printed

TOPIC TAGS: automatic control, industrial automation, petroleum industry, potentiometer

PURPOSE AND COVERAGE: The book is devoted to the theory of construction and practical application of automatic null-type measuring devices for alternating current, such as automatic potentiometers for laboratory and factory use. The instruments dealt with are automatic compensators for laboratory research, both universal and special-purpose, automatic compensation devices for production research, and automatic compensation devices for automatic control. The book deals with the theory, construction, and application of the various measuring devices, based on both the author's own research, and on the published literature by a number of workers in the field. It contains also the results of experience in the development and use of automatic null-type ac devices resulting from research carried out at the Azerbaydzhan Institute of Oil and Chemistry im. M. Azizbekov (Baku), the Scientific Research Institute Neftokhimavtomat (Sumgait), VNIIEP (Leningrad), the Kuybyshev Polytechnic Institute, the Institute of Automation and Electric Measurements of the Siberian Department of AN SSSR (Novosibirsk), the Institute of Machine Research and Automation (L'vov), and others. The

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L 25565-66

ACC NR: AM6004738

book is intended for engineering, technical, and scientific workers engaged in the development and application of means of automation, information and measuring techniques, and computation techniques for the oil, electrochemical, chemical, and other branches of industry.

TABLE OF CONTENTS [abridged]:

Introduction - - 3

Ch. I. Automatic follow-up null-type ac devices with continuous balancing - - 10

Ch. II. Digital automatic null-type ac devices - - 198

Ch. III. Automatic ac null devices with cyclic operation - - 235

Ch. IV. Problems of application of automatic null-type devices for alternating current - - 257

Literature - - 351

SUB CODE: 14/ SUBM DATE: 16Apr65/ ORIG REF: 135/ OTH REF: 015

Card

2/2 FW

SHAYN, I.L.

Designing voltage dividers for compensation circuits. Izv.vys.ucheb.  
zav.; prib. 3 no.5:20-24 '60. (MIRA 13:11)

1. Azerbaydzhanskiy institut nefi i khimii imeni M. Azizbekova.  
Rekomendovana kafedroy elektricheskikh izmereniy i avtomaticheskikh  
ustroystv.

(Voltage regulators)

SHAYN, I.L.

Automatic control of a.c. rectangular crossbar compensators.  
Izv.vys.ucheb.zav.;prib. 4 no.4:32-38 '61. (MIRA 14:9)

1. Azerbaydzhanskiy institut nefi i khimii imeni M.Azizbekova,  
Rekomendovana kafedroy elektricheskikh izmereniy i avtomaticheskikh  
ustroystv.

(Electric controllers)

9.6000 (1040, 1067, 1089, 1331)

8:00  
S/46 61/004/000/000/020  
D201/D30

AUTHORS: Melik-Shakhnazarov, Shayn, L. L. and Aliyev, T. M.

TITLE: On the problem of designing automatic digital a.c. compensators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Pribroostro-  
yeniye. v. 4, no. 6, 1961, 67-71

TEXT: The authors consider the process of automatic balancing in a digital a.c. compensator as shown in Fig. 2. The circuit consists of an in-phase voltage compensating unit  $U_{KX}$ , a quadrature voltage compensating unit  $U_{Ky}$ , a null-arrangement and an output stage, consisting of voltage amplifiers, a power amplifier, pulse generator, phase-shifting networks, meters, quadrant indicator and digital display of measured voltage. The voltage  $U_{Kb}$  as applied to the element of continuous balancing is that introduced by every period of discrete balancing ( $U_{Kd} = U_{Kb}$ ). If the measured voltage

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S/46/61/001/006/009/020  
220/230

On the problem of designing

$U_m < U_{kb}$ , the measurement is made as in the normal automatic compensator of continuous action by L. P. Kulikovskiy, A. M. Melik Snakh-nazarov (Ref. 2: Kompensatory peremennogo tika GEI, 1960), i.e. the voltage difference  $\Delta U = U_m - U_{kb}$  is introduced into the stages D until balance is obtained. If  $U_m > U_{kb}$ , the element of continuous balancing introduces the maximum value of  $U_p$  and thus closes the contact B and connects the discrete balancing element (the winding  $S_0$  of a step-by-step switch) to the source of timing pulses.

The discrete balancing element provides a step-by-step balancing voltage until the compensating voltage becomes greater than the measured one. When this occurs, the phase of the amplifier output voltage changes, the balancing circuits shift in the opposite direction and the discrete balancing element is disconnected from the source of timing pulses. The balancing circuit operates until full compensation is achieved. If condition  $U_m < U_{kb}$  arises, the

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On the problem of designing ...

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S/146/61/004/006/009/020  
D201/D301

balancing circuit closes the switch M, reversing the discrete balancing circuit. The above circuit has been tried successfully by the authors at the Department of Electrical Measurement and Automation of the Azerbaydzhan Institute of Petroleum and Chemistry im. M. Azizbekov, with the cooperation of Engineer V. V. Kantorovich, and S. V. Semikhov. The model proved to be stable. Frequency of the timing pulses was 2 c/s so that the balancing period exceeded 15 sec in some cases. At present the authors are engaged in cooperation with the  $\angle KB$  (SKB) plant "Tochelektropribor" in building a production model of the automatic a.c. current compensator. This article was recommended by the Kafedra elektricheskikh izmereniy i avtomatiki (Department of Electrical Measurement and Automation). There are 4 figures and 2 Soviet-bloc references.

ASSOCIATION: Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova (Azerbaydzhan Institute of Petroleum and Chemistry im. M. Azizbekov)

SUBMITTED: March 25, 1961

Card 3/5.

ISSN 0007-1226; ISSN 0007-1226; ISSN 0007-1226; ISSN 0007-1226

Electronic model of an automatic a.c. compensator in rectangular  
coordinates. Izv. AN AzerbSSR Ser. fiz.-mat. i tekhn. nauk no. 4:  
1961 (MIRA 14:12)  
(Electronic apparatus and appliances: Models)  
(Measuring instruments)

SHAYN, I.L.; KONTAROVICH, V.B.

Universal automatic a.c. device. Za tekhn. progr. 3 no.3:4-8 Mr  
'63. (MIRA 15:10)

1. Azerbaydzhanskiy institut nefi i khimii im. M.Azizbekova.

MELIK-SHAKHNAZA OV, A.M.; ALIYEV, T.M.; SHAYN, I.L.

Self-compensating apparatus for measuring the electric conductivity  
of drilling fluids. Izv. vys. ucheb. zav.; neft' i gaz 6 no.2:  
101-104 '63. (MIRA 16:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.  
(Oil well drilling fluids—Electric properties)

12

MELIK-SHAKHNAZAROV, A.M.; ALIREV, I.M.; SHAIN, I.L.

Investigating the balancing process in an automatic rectangular-  
crossbar a.c. compensator. Za tekhn. prog. 3 no.9:1-5 S '63.  
(MIRA 16:10)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.

L 13614-65  
ACCESSION NR: AP4046788

S/0115/64/000/008/0034/0036

AUTHOR: Melik-Shakhnazarov, A. M.; Shayn, I. L.; Shakhmardahov, Sh. M.

TITLE: Automatic a-c compensator with an astatic-static balance

SOURCE: Izmeritel'naya tekhnika, no. 8, 1964, 34-36

TOPIC TAGS: AC compensator, single rheochord compensator

ABSTRACT: A new automatic single-rheochord a-c compensator is described. The compensator permits measuring both components of the voltage alternatively by using one balancing channel (one electronic amplifier, one final element, one readout). High accuracy is attained through simultaneous compensation of both components of the measurand, one of them being compensated astatically by means of the actuator motor and the rheochord, and the other by means of a negative feedback taken from a preamplifier. The voltage component measured on the rheochord scale is noted, and then the phases of compensating and

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L 13614-65

ACCESSION NR: AP4046788

reference voltages of the balancing channel are shifted by  $90^\circ$ , which permits measuring the second voltage component. An experimental model had a range of 50 mv, a balance-channel sensitivity of 10 microv, an error due to the second-channel interference of 0.04%, and a total error of 0.3%. Orig. art. has: 2 figures and 11 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EE

NO REF SOV: 005

OTHER: 000

Card 2/2

L 18232-65 EWT(1)/EPR/EWA(h)/EWA(m)-2 Ps-4/PeB AEDC(b)/AFTC(p) WW

ACCESSION NR: AP4048296

S/0146/64/007/005/0108/0114

AUTHOR: Shayn, I. L.; Abarinov, Ye. G.

TITLE: Designing high-accuracy electromagnetic flow meters 25

B

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 5, 1964, 108-114

TOPIC TAGS: flow meter, electromagnetic flow meter

ABSTRACT: An electromagnetic flow meter with a special automatic rectangular-coordinate a-c compensator which compensates both the desirable signal and the quadrature noise is described. On the simplified diagram (see Enclosure 1),  $U_x$  is the sensor signal;  $U_k$  and  $jU_k$  are the compensating quadrature voltages; 1 - voltage amplifier; 2 and 3 - phase shifters; 4 and 5 - power amplifiers;  $D_1$  and  $D_2$  - actuator motors. It is claimed that an experimental model of the meter had an accuracy of 0.5%. These conclusions are offered: (1) The possibility of designing a secondary instrument with an error of 0.2% or better for the electromagnetic

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L 18232-65

ACCESSION NR: AP4048296

flow meter is demonstrated; (2) In addition to the automatic compensation of quadrature noise, the latter should be minimized by static methods; (3) The position of phase-sensitivity vectors has a negligible effect on the overall error of the secondary instrument; (4) The sensitivity of the "amplifier motor" channel to quadrature signal has a considerable bearing on the error of measurement. Orig. art. has: 3 figures, 12 formulas, and 1 table.

ASSOCIATION: Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova  
(Azerbaidzhan Institute of Petroleum and Chemistry)

SUBMITTED: 20Dec63

ENCL: 01

SUB CODE: IE

NO REF SOV: 010

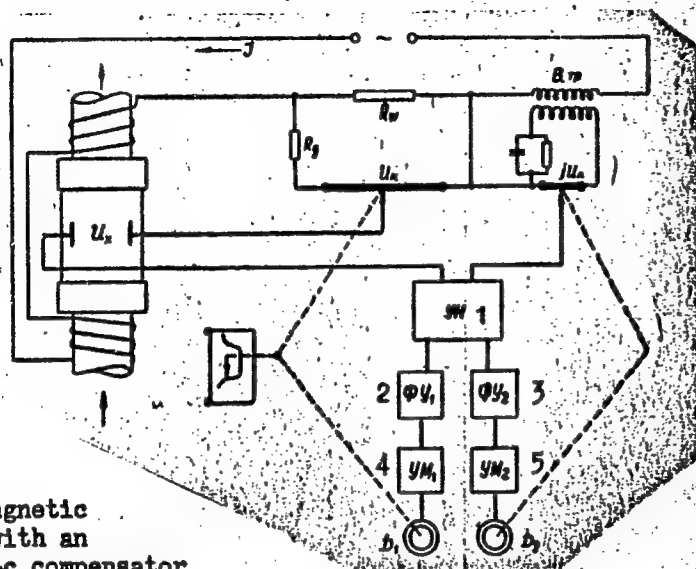
OTHER: 000

Card 2/3

L 18232-65

ACCESSION NR: AP4048296

ENCLOSURE 01



An electromagnetic  
flow meter with an  
automatic a-c compensator

Card 3/3

ALTYN ... IIE-SHAKHNAZAROV, A.M.; SHAYN, I.L.; KASHEVCHAYA,  
...; red.

[Automatic a.c. compensating devices] Avtomaticheskie kom-  
pensatsionnye ustroystva peremennogo toka. Baku, Azerbaidzhan-  
skoe gos. izd-vo, 1965. 359 p. (NIRA 18:10)

SHAYN, I.L.

Use of feedback in respect to speed in automatic rectangular-  
coordinate a.c. compensators. Izv. vys. ucheb. zav.; elektromekh.  
7 no.6:746-751 '64. (MIRA 17:7)

SHAYN, L.A.

Strangulated intestinal obstruction in a child caused by Mecke's  
diverticulum. Nov.khir.arkh. no.6:134 N-D '58. (MIRA 12:3)

1. Khirurgicheskoye otdeleniye Belgorod-Dnestrovskoy gorodskoy  
bol'nitsy, Odeskoy obl.

(INTESTINES--BOSTRUCTIONS)

SHAYN, L.A.

Echinococcosis of the spleen. Khirurgiia 34 no.4:120-121 Ap '58  
(MIRA 11:7)

1. Iz khirurgicheskogo otdeleniya (zav. V.V. Pen'kevich) Belgorod-  
Dnestrovskoy gorodskoy bol'nitsy (glavnyy vrach M.S. Bondarenko).

(SPLEEN, diseases

echinococcosis, case report (Rus))

(ECHINOCOCCOSIS, case reports

spleen (Rus))

S/169/61/000. 16/055/039  
A005/A130

AUTHORS: Ayzu, Kh., Fudzhimoto, I., Khazegava, S., Koshiba, M.,  
Muto, I., Nishimura, Dzh., Ikon, K., Shayn, M.

TITLE: Primary cosmic radiation at Prince Albert, Canada

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1961, 12, abstract  
6083. (Tr. Mezhdunar. konferentsii po kosmich. izluch., 1959,  
T. 3. Moscow, AN SSSR, 1960, 110-115)

TEXT: The authors analyzed data from the recording of heavy nuclei  
of primary cosmic radiation. The measurements were conducted on September  
11, 1957 with the aid of a photoemulsion pile at an altitude of 36 km  
(geomagnetic latitude 62°N). Differential energy spectra were obtained  
of  $\alpha$ -particles, nucleus groups C, N, O; F - Si; P - Fe, and Li, Be and B  
in the energy range from 150 to 800 Mev/nucleon. The shapes of the spectra  
for all groups except Li, Be and B were the same. The streams of Li, Be  
and B-nuclei evince a pronounced increase of intensity (relative to the  
C, N and O groups) at energies of 300-700 Mev/nucleon. Analysis of the

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S/169/61/000 1.14012, 17  
A005/A12

Primary cosmic radiation at Prince Albert, Canada

fragmentation probability of the heavy nuclei as a function of energy. It shows that the relative increase in quantity of the light nuclei is due to an increase in the quantity of matter permeable to heavy ( $Z \geq 6$ ) energy nuclei. Therefore the authors conclude that the mechanism of local acceleration is not very effective in interstellar space for large nuclei. The most probable origin of cosmic rays is in Supernovae with subsequent diffusion throughout the Galaxy. The authors explain the features of the relative abundance of different elements in primary radiation. They show that a number of peculiarities detected in the high energy range are also observed at energies  $\approx 700$  Mev/nucleon. Owing to the fact that no antiparticle whatsoever was detected, the value 0.1% was determined as the upper limit of the amount of antimatter in primary cosmic radiation.

N. Kaminer

[Attractor's note: Complete translation.]

Card 2/2



SHAYN, N. P. and GALE, V. T.

"Abundance of Diffuse Matter in the Outside Region of Planetary Nebulae"  
Izv. Krimsk. Astrofiz. Observ., 11. 1954. pp 18-21

Authors contradict the hypothesis by T. Pate and J. Greenstein (Astrophys. J. 114. 98 (1951)) stating that the observed dimensions of planetary nebulae are below their real size, because of absorption of ionized radiation by the outside shell. Authors consider this outside barrier hardly possible, because of the heterogeneous structure of the nebula. Their observations revealed a new filament in nebula NGC 7293 at 14 inches from the center, and in nebula NGC 7635 a blending of diffuse matter with a nebulosity of intermediate type having the shape of a thin ellipse. (RZhAstr, No.11, 1954)

SO: W-31187, 8 Mar 55

KRAPIVIN, Nikolay Nikolayevich, starshiy prepodavatel'; DZHEMS-LEVI,  
G.Ye., kand.fiz.-matem.nauk, retsenzent; SHAYN, P.B., kand.  
tekhn.nauk, retsenzent; CHLOYAN, M., red.; KARZHAVINA, Ye.,  
tekhn.red.

Sergei Alekseevich Chaplygin. Lipetsk, Lipetskoe knizhnoe  
izd-vo, 1960. 19 p. (MIRA 14:2)

1. Lipetskiy pedagogicheskiy institut (for Krapivin).  
(Chaplygin, Sergei Alekseevich, 1869-1942)

SHAYN, Ya.S.

Calculating the strength of the arm of an electric steel-smelting furnace. Izv. vys. ucheb. zav.; Chern. met. no.9: 182-190 '60. (MIRA 13:11)

1. Moskovskiy institut stali.  
(Electric furnaces)

SHAYNIK, A.I.

Aegirite from a tuff of lower Sarmatian sediments in the south-western part of the Russian Platform. Min.sbor. no.11:352-353 '57. (MIRA 13:2)

1. Gosuniversitet imeni Ivana Franko, L'vov.  
(Russian Platform--Aegirite)

SHAYMAN, A. V. and DUBROVY, K. K.

"Underground Gasification of Petroleum Deposits and a Thermal Method of  
Petroleum Recovery," ONTI, 1954

SHAYNOVICH, I.M. (Kostroma)

I.P. Pavlov's opening words at the commemorative session of the Sechenov Society of Russian Physiologists held in Leningrad on Dec. 26, 1929, in honor of the 100th anniversary of I.M. Sechenov's birth. Zhur. nevr. i psikh. 55 no. 11: 801-804 '55. (MLRA 8:11)  
(SECHENOV, IVAN MIKHAILOVICH, 1829-1905)

1ST AND 2ND COPIES		PROCESSING AND PROPERTIES UNIT		100 AND 4TH COPIES	
C		11C			
<p>Biochemical properties of the acetic acid bacteria of the group of quick-vinegar bacteria. A. P. Vasil'ev and I. M. Shaim'in. <i>Mikrobiol. Zhur.</i> 3, No. 3, 62-71(1938); <i>Khim. Referat. Zhur.</i> 2, No. 4, 65(1939).—The assimilation of N and C from different sources by the following acetic acid bacteria of the quick-vinegar bacterial group was investigated: <i>Bacterium schäfferbachii</i> (9 strains),</p>		<p><i>B. orleanense</i> (16 strains) and <i>B. curvum</i> (4 strains). The bacteria were taken from the Kiev vinegar works and raised on synthetic media of Simons-Drobot'ko (sources of C 1.0 g., N 1.0 g., <math>K_2HPO_4</math> 1.0 g., <math>MgSO_4</math> 0.2 g., NaCl 5.1 g., distd. water 1.0 l., and washed agar agar 20.0 g.) in which the sources of C and N were varied. The degree of assimilation was detd. by the intensity of the growth of the bacteria. The sources of N (with glucose as the source of C) can be given in the following order according to their degree of assimilation of N: asparagine, <math>NH_4NO_3</math>, urea and <math>KNO_3</math> (for <i>B. schäfferbachii</i> only <math>KNO_3</math> is a better source of N than <math>NH_4</math>). Urea is clearly unsuitable as a source of N. The following substances were investigated as sources of C: Na citrate, Na lactate, Na succinate, Na acetate, EtOH and glycerol. The sources of N were the same substances as in the previous expt. Best results were obtained with Na lactate and Na succinate, and worst results with Na acetate, EtOH and glycerol. The relation between the sources of N and C can be given as follows. The <i>B. curvum</i> medium with Na acetate and urea was not assimilated by any of the strains while the media with Na acetate and <math>NH_4</math> N were assimilated by all strains. The results obtained show that the strains of the same kind can differ greatly according to their biochem. properties, and that the strains of different kinds can be similar according to their physiol. properties. These facts create doubts as to the existence of the types <i>B. schäfferbachii</i>, <i>B. orleanense</i> and <i>B. curvum</i> as sep. classified substances.</p>			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION		W. R. Hearn			

16

1 C A

The unstable nature of acetic acid bacteria of the quick-vinegar group and the utilization of their variants in the production of vinegar. I. M. Shainskaya. *Microbiology* (U. S. S. R.) 8, No. 3 4, 474-6 (1930); *Khim. Referat.* Aug 1930, No. 11, 46; cf. C. A. 34, 6347. S. sept. 3 strains of *Acet. schutzenbachi* which produced up to 10% of AcOH. A max. accumulation of the acid under production conditions was obtained from the variant R, owing to its better film-forming ability W R II.

*Microbial Inst, Dept. Biol Sci Ukr.*

ASH S L A METALLURGICAL LITERATURE CLASSIFICATION



SHAYNSKAYA, I. M.

Variability of acetic acid bacteria; *Bacterium Schutzenbachii*.  
Mikrobiologiya, Moskva 19 no.5:426-433 Sept-Oct. 1950. (CML 20:1)

1. All-Union Scientific-Research Institute of the Canned Foods  
Industry, Moscow.

From cultures of *B. schutzenbachii* three well-defined types have been isolated and obtained in pure culture--a rough form, a smooth form, and a mucous form. Not all forms are obtainable from every strain. The morphological and physiological properties of these forms are described. The rough forms are the most rapidly growing and the ~~most~~ least active acid producers in all strains investigated.

SHAYNSKAYA, I.M.

Isolation and selection of active culture of Acetobacter in industrial production of vinegar. Mikrobiologiya, Moskva 22 no.1: 72-78 Jan.-Feb 1953. (CML 25:4)

1. All-Union Scientific-Research Institute of the Canned Food Industry.

SHAYNYUK, A.I.

Viridine in Miocene deposits of the southwestern part of the  
Russian Platform. Vop.min.osad.obr. 2:217-218 '55. (MLRA 9:11)  
(Russian Platform--Viridine)

SHAYNYUK, A.I.

Mineralogical composition of clayey-sand deposits of the Miocene in  
the northeastern part of the Volyn-Podolian Upland and their genesis.  
Vop.min.osad.obr. 5:80-125 ' 58. (MIRA 12:3)  
(Volyn-Podolian Upland--Mineralogy)

SHAYNYUK, A.I.

Some characteristics of glauconite from the basin of the Goryn' and  
Viliya Rivers. Vop.min.osad.obr. 5:238-262 ' 58. (MIRA 12:3)  
(Goryn' Valley--Clauconite) (Viliya Valley--Glauconite)

SHAYNYUK, A. I., Cand. Geol-Mineral. Sci. (diss) "Petrography  
of Miocene Deposits of Northeastern Volyno-Podol'skiy Lowland,"  
L'vov, 1961, 19 pp (L'vov Polytech. Inst.) 175 copies (KL Supp  
19-61, 266).

SHAYNYK, A.I.

Mineral composition of clays in the Brykov region. Min. sbor. 18  
no.4#467-475 '64. (MIRA 18:7)

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN Ukr-SSR,  
L'vov.

SHAYOVICH, L.L., kandidat ekonomicheskikh nauk, dotsent.

Technical and economical bases for the specialization of machine  
building plants. Trudy LIEI no.8:5-16 '54. (MIRA 9:9)  
(Machinery industry)



SHAYOVICH, L.L., kandidat ekonomicheskikh nauk, dotsent; ORLOVA, M.I.,  
kandidat ekonomicheskikh nauk.

Consolidated calculation of the work capacity in designing new  
machines. Trudy LIEI no.10:102-106 '55. (MLRA 9:8)  
(Machinery--Design)

SHAYOVICH, L.L.  
PHASE I BOOK EXPLOITATION

469

Yel'yashevich, A.B., Karlik, Ye. M., and Shayovich, L.L.

Ekonomika sotsialisticheskogo mashinostroyeniya (The Economics of Socialist Machine Building) Moscow, Mashgiz, 1957. 475 p.  
15,000 copies printed.

Reviewers: Novozhilov, V.V., Prof., Dr. of Economic Sciences,  
and Stepanov, G.A.; Ed. of Publishing House: Leykina, T.L.;  
Tech. Ed.: Speranskaya, O.V.; Managing Ed. of Leningrad Branch  
of Mashgiz: Bol'shakov, S.A.

PURPOSE: This book is a textbook for undergraduate students  
enrolled in engineering courses, as well as for personnel  
employed by planning and design organizations and by machine-  
building plants.

COVERAGE: The co-authors of this book endeavored to give a  
systematic presentation of the problems and development of  
socialist machine-building as a science. Though no complete

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The Economics of Socialist Machine Building 469

course in the economics of socialist machine-building is offered, a discussion is presented of its basic problems and the following aspects are examined: (1) scope and rate of machine-building development; (2) ways of improving machinery systems and the natural law governing the development of the machine-building industry; (3) personnel and organization of labor; (4) the natural law governing the progress of specialization and cooperation; (5) concentration and distribution of machine-building production; (6) problems concerning the effective use of fixed and turnover assets; (7) economic accountability of machine building. Chapters I, II, III, VII, IX, X, and XI were written by Professor A.B. Balashev; chapters IV, V, and XII, by Docent L.L. Shayovich; and chapters VI and VIII by Docent Ye. M. Karlik. It is pointed out in the preface that the co-authors of this book constitute the nucleus of the Department of Machine-building Economics of the Leningrad Institute of Engineering Economics.

Card 2/9

25(0)

PHASE I BOOK EXPLOITATION

SOV/1884

Leningrad. Inzhenerno-ekonomicheskii institut.

Nekotoryye voprosy ekonomiki mashinostroyeniya (Some Problems on the Economics of Machine building) [Leningrad] 1957. 176 p. (Series: Its: Trudy, vyp. 18)  
Errata slip inserted. 2,025 copies printed.

Eds. (Title page): S.A. Volkov, A.B. Yel'yashevich, V.V. Novozhilov, and  
L.L. Shayovich; Ed. (Inside book): M.U. Slizhis; Tech. Ed.: Ye.A. Pul'kina.

PURPOSE: These articles are intended for engineers and economists of machine-building plants and planning institutes, as well as for students of engineering and economics.

COVERAGE: This volume consists of eight articles on the economics of machine building. L.L. Shayovich discusses indexes as aids in determining specialization and cooperation levels, and in estimating efficiency when planning enterprises for the production of special goods. Ya.L. Mirkin discusses specialization in the production of equipment for specific purposes. He criticizes the state of production of auxiliary equipment in the precision instrument industry, points out the main trends of concentration and specialization, and analyzes methods for planning the

Card 1/4

Some Problems of the Economics (Cont.)

SOV/1884

Lukashevich, L.M. [Engineer and Economist]. Standardization of Designs and Classification of Industrial Processes as Factors in Developing the Conveyer System for the Production of Fittings

45

Gushchin, B.D. [Engineer and Economist]. Some Principles in the Selection of Suitable Automatic Machine Tool Lines

Fokina, T.N. [Candidate of Economic Sciences]. Methods for Integrating Estimates of Preliminary Cost of Turbine Blades

100

Yakuta, K.I. [Engineer and Economist]. Economic Effect of Electrospark Machining of Dies

121

Teterin, E.V. [Economist]. Unit for Measuring Output of Castings in Accordance With Cast Models

140

Card 3/4

SHAYOVICH, L.L.

Forging and stamping industry in England. Kuz.-shtan.proizv.  
1 no.4:33-38 Ap '59. (MIRA 12:10)  
(Great Britain--Forging)

VOIKOV, S.A., red.; YEL'YASHEVICH, A.V., red.; SHAYOVICH, L.L., red.

[Problems of specialization and cooperation in machinery  
manufacturing] Voprosy spetsializatsii i kooperirovaniia  
mashinostroitel'nogo proizvodstva. Leningrad, Izd-vo Leningr.  
univ., 1960. 161 p. (MIRA 14:4)  
(Machinery industry)

SHAYOVICH, L. L., kand. ekonomicheskikh nauk, dotsent

Methods of planning specialization and cooperation in forging  
and stamping shops. Trudy LIEI no. 31:3-29 '60. (MIRA 13:10)  
(Forging)



SHAYOVICH, L.L., kand.ekonomicheskikh nauk, dotsent

Specialization and cooperation of forging and stamping shops in  
England. Trudy LIEI no.31:143-161 '60. (MIRA 13:10)  
(Great Britain--Forging)

SHAYOVICH, Leyzer Leybovich; CHAUN, G.M., inzh., retsenzent;  
YEL'YASHEVICH, A.B., prof., red.; LEYKINA, T.L., red. izd-va;  
CHFAS, M.A., red. izd-va; PETERSON, M.M., tekhn. red.

[Specialization and cooperation in forging and sheet-metal work]  
Spetsializatsiya i kooperirovanie kuznechno-shtampovogo pro-  
izvodstva. Moskva, Mashgiz, 1962. 142 p. (MIRA 15:9)  
(Forging) (Sheet-metal work)

AYZENBERG, B.L.; BOLOTOV, V.V. ; BRIL', R.Ya.; GERASIMOV, V.N.; GREKOV, V.I.;  
DOVETOV, M.Sh.; KAMENSKIY, M.D.; KLEBANOV, L.D.; KONSTANTINOV, B.A.;  
KUZ'MIN, V.G.; LYUBAVSKIY, V.I.; MELENT'YEV, L.A.; MIKHALEV, N.N.;  
POLYANSKIY, V.A.; RAZDROGINA, L.A.; SIVAKOV, Ye.R.; STARIKOV, V.G.;  
SAVASHINSKAYA, V.I.; SHAYOVICH, L.L.

Igor' Valentinovich Gofman, 1903-1963; obituary. Trudy LIEI  
no.51:3-4 '64. (MIRA 18:11)

SHAYKHULASHVILI, A. G.

Georgian (Transcaucasian) - Transcaucasia

Growing economic in Georgia, L.S. Khark., 6, No. 9, 1950

9. Monthly List of Russian Accessions, Library of Congress, November 1952<sup>XXX</sup>1953, Uncl.

SHAYSHMELASHVILI, E. Z.

"The Influence of the Nervous System on Phagocytosis." *Cand Med Sci*,  
Second Moscow State Medical Institute I. V. Stalin, 17 Nov 54 (VI, 9  
Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

SHAYSHMELASHVILI, V. N.

Mathematical Reviews  
Vol. 14 No. 9  
October 1953  
Mechanics

Shayshmelashvili, V. N. Approximate computation of a sufficiently sloping spherical shell with a given deformation of the contour. Soobščeniya Akad. Nauk Gruzin. SSR. 10, 609-614 (1949). (Russian)

The author considers a shell as in the title (i.e., open shell of small curvatures) with rectangular contour when projected on a plane. All four vertices are fixed in ball shape supports which act as hinges. The convex side of the shell is upside. The two simultaneous differential equations determining the stress function and the normal deflections for this kind of a shell are given and referred to the author's previous works [cf. same Soobščeniya 10, 397-403 (1949)]. The given deformations on the contour follow the sine law. The author uses the method of finite differences, dividing the middle surface of the shell into sixteen rectangles. He sets his boundary-value problem in finite difference form and solves it easily. He claims that the error is less than 6%. The general theory is followed by an example of a square spherical shell. All the stresses and displacements for the chosen points are tabulated, and the vertical deflections for three shells of different curvatures are graphically illustrated (over).

5/2 521.75 1.44  
trated. The formulas found for the example were used to  
find the stresses in a concrete shell whose dimensions and  
elasticity constants are given. It was found that for the  
chosen displacement (which seemed small) the tensile stress  
in a vertex exceeds the strength of material limit.

T. Jeser (Lexington, Ky.).

ONIASHVILI, O.D.; SHAYSHMELASHVILI, V.N.

Precast reinforced concrete cylindrical roofs for industrial  
buildings designed by the Institute of Construction of the  
Academy of Sciences of the Georgian S.S.R. Trudy nauch. korr.  
Inst. stroi. dela AN Gruz. SSR. no.2:7-26 '58. (MIRA 12:7)  
(Roofs, Shell)



SHAYSHMELASHVILI, V.N.

Using the finite difference method in designing convex slabs.  
Trudy nauch. korr. Inst. stroi. dela AN Gruz. SSR, no.2:61-89  
'58. (MIRA 12:7)

(Elastic plates and shells)

POLISHCHUK, P.; SHAYTAN, B.; YABLOKOVA, K.M., red.; OVECHKIN, L.T.,  
tekhn.red.

[How we reduce agricultural production costs] Kak my snizhaem  
sebestoimost' sel'skokhoziaistvennoi produktsii. Tiumen', Tiu-  
menskoe knizhnoe izd-vo, 1960. 33 p. (MIRA 14:5)  
(Tyumen' Province--Agriculture--Costs)

ALAYAN, T. L.

Peach

Winter hardy varieties of peach. Biul. Glav. bot. sada  
No. 10, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

5411111 1 111

CTRSPL Vol. 5-No. 1 Jan. 1952

which

Shaitan, L.M. (Botanical Garden, Ukrainian S.S.R. Academy of Sciences, Kiev). The effect of the age of the flowers on the results of close, related and remote crossings of peach and apple, 1955-8

et. As a result

Akademiya Nauk, S.S.S.R., Doklady Vol. 78, No. 5, 1951